09/707,044

## <u>AMENDMENTS</u> TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## <u>LISTING OF CLAIMS</u>

1. (Currently Amended) A method of deconstructing video comprising: separating a video image sequence into two or more components;

selecting a plurality of dimensions, where each dimension represents a characteristic of the video image sequence; and

encoding each component of the video image sequence in accordance with the selected dimensions to form a plurality of bitstreams, such that the plurality of bitstreams forms a partial order wherein each point of the partial order represents a unique valid combination of components and dimensions for encoding the video image sequence, and a base of the partial order represents a base bitstream comprising components that are common to each of said plurality of bitstreams, said base bitstream encoding a first version of said video image sequence.

2. (Previously Presented) The method of claim 1 wherein said encoding step comprises:

forming the base bitstream representing a first video image sequence having a first set of characteristics; and

forming at least one additional bitstream, where each additional bitstream represents a different dimension and wherein when said base bitstream and said at least one additional bitstream are combined to form a combined bitstream, the combined bitstream represents a reconstructed video image sequence having different characteristics than said first video image sequence.

(Previously Presented) The method of claim 1 wherein said plurality of 3. dimensions comprise at least one of specific image regions, frame rate, resolution, and

09/707.044

color depth.

- 4. (Cancelled)
- (Previously Presented) The method of claim 1 wherein each of said two or more 5. components is encoded as at least one additional bitstream.
- 6. (Previously Presented) The method of claim 1 wherein all of said two or more components are orthogonal relative to each other.
- 7. (Original) The method of claim 1 wherein said method is performed at the edge of a network.
- 8. (Original) The method of claim 1 wherein said method is performed at an intermediate node within a network.
- 9. (Original) The method of claim 8 wherein an intermediate node performs one or more functions selected from reconstruction, deconstruction, or a combination of deconstruction and reconstruction.
- 10. (Cancelled)
- (Previously Presented) The method of claim 1 wherein, after encoding, each of 11. said two or more components is represented by a base bitstream and at least one additional bitstream.
- 12. (Cancelled)
- 13. (Cancelled)

09/707.044

- 14. (Previously Presented) The method of claim 11 wherein said base bitstream represents a first video image sequence having minimal quality.
- 15. (Previously Presented) The method of claim 14 wherein said at least one additional bitstream, when combined with said base bitstream, represents a second video image sequence having a quality that is higher than said base bitstream.
- 16. (Withdrawn) A method of distributing deconstructed video through a network comprising a plurality of nodes, the deconstructed video comprising a base bitstream and a plurality of additional bitstreams that, when taken together, represent a video sequence, the method comprising:

selecting within a node said base bitstream and at least one of said additional bitstreams, wherein said selection is performed in response to a capability of a user device that is coupled to said node;

combining said base bitstream and said at least one additional bitstream to form a combined bitstream; and

propagating said combined bitstream to the user device.

- 17. (Withdrawn) The method of claim 16 wherein said selecting step is performed in an intermediate node within the network and said combining step is performed in an edge node.
- (Withdrawn) The method of claim 16 wherein said selecting step is performed at the edge of a network.
- 19. (Withdrawn) The method of claim 16 wherein the manner of distribution of said deconstructed video through the network is selected from the following group: broadcast, pointcast, multicast,
- 20. (Withdrawn) The method of claim 16 wherein said at least one additional

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09/707,044

bitstream represents a dimension of said video sequence.

- 21. (Withdrawn) The method of claim 16 wherein said base bitstream represents a video sequence having minimal quality.
- 22. (Withdrawn) The method of claim 21 wherein said at least one additional bitstream, when combined with said base bitstream, represents a video sequence having a quality that is higher than said base bitstream.
- 23. (Withdrawn) The method of claim 16, wherein the network comprises at least one transition node, where each transition node performs a method comprising:

selecting said base bitstream and at least one of said additional bitstreams for further propagation through a network that is coupled to said at least one transition node.

24. (Withdrawn) The method of claim 23 wherein said further propagation is through a second network comprising nodes that perform a method comprising:

selecting said base bitstream and at least one of said additional bitstreams, wherein said selection is performed in response to a capability of a user device that is coupled to said node in said second network;

combining said base bitstream and said at least one additional bitstream to form a combined bitstream; and

propagating said combined bitstream to the user device.

25. (Currently Amended) Apparatus for producing deconstructed video comprising:

a video component extractor for extracting at least one second image sequence from a first image sequence, where said at least one second image sequence represents a component of said first video image sequence;

an encoding dimension selector for selecting a plurality of dimensions to use to encode said at least one second image sequence; and

09/707,044

- a dimension-based encoder, coupled to said encoding dimension selector, for encoding the at least one second video image sequence into a plurality of bitstreams, such that the plurality of bitstreams forms a partial order wherein each point of the partial order represents a unique valid combination of dimensions for encoding the first image sequence and the at least one second image sequence, and a base of the partial order represents a base bitstream comprising components that are common to each of said plurality of bitstreams, said base bitstream encoding a first version of said video image sequence.
- 26. (Original) The apparatus of claim 25 wherein the dimensions are orthogonal.
- 27. (Original) The apparatus of claim 25 wherein the components comprise foreground, background, and moving objects.
- 28. The apparatus of claim 25 wherein the dimensions comprise (Original) resolution, frame rate, and color.
- 29. (Withdrawn) A system for generating and distributing deconstructed video comprising:
- a deconstructed video source for producing a plurality of bitstreams that represent a video sequence;
- a communications network, coupled to said deconstructed video source, for propagating said plurality of bitstreams; and
- a plurality of network interface devices (NIDs), coupled to said network, for extracting a subset of the plurality of bitstreams and propagating said subset of bitstreams to a user device.
- 30. (Withdrawn) The system of claim 29 further comprising transition nodes, coupled to said network, for extracting a subset of said plurality of bitstreams from said network and coupling the subset of bitstreams to a second network.

09/707.044

- 31. (Withdrawn) The system of claim 30 further comprising NIDs coupled to said second network for extracting a further subset of the subset of bitstreams and coupling the further subset of bitstreams to a user device.
- 32. (Currently Amended) A computer readable medium containing software that, when executed by one or more general purpose computers operating as network nodes, causes the computer or computers to perform a method comprising:

separating a video image sequence into two or more components;

selecting a plurality of dimensions, where each dimension represents a characteristic of the video image sequence; and

encoding each component of the video image sequence in accordance with the selected dimensions to form a plurality of bitstreams, such that the plurality of bitstreams forms a partial order wherein each point of the partial order represents a unique valid combination of components and dimensions for encoding the video image sequence, and a base of the partial order represents a base bitstream comprising components that are common to each of said plurality of bitstreams, said base bitstream encoding a first version of said video image sequence.

33. (Previously Presented) The method of claim 32 wherein said encoding step comprises:

forming the base bitstream representing a first video image sequence having a first set of characteristics; and

forming at least one additional bitstream, where each additional bitstream represents a different dimension and wherein when said base bitstream and said at least one additional bitstream are combined to form a combined bitstream, the combined bitstream represents a reconstructed video image sequence having different characteristics than said first video image sequence.

34. (Previously Presented) The method of claim 32 wherein said plurality of

→ PTO

09/707,044

dimensions comprise at least one of specific image regions, frame rate, resolution, and color depth.

- 35. (Cancelled)
- 36. (Previously Presented) The method of claim 32 wherein each of said components is encoded as at least one additional bitstream.
- 37. (Previously Presented) The method of claim 32 wherein all of said two or more components are orthogonal relative to each other.
- 38. (Original) The method of claim 32 wherein said method is performed at the edge of a network.
- 39. (Cancelled).
- 40. (Previously Presented) The method of claim 32 wherein, after encoding, each of said two or more constituent components is represented by a base bitstream and at least one additional bitstream.
- 41. (Cancelled).
- 42. (Cancelled).
- 43. (Previously Presented) The method of claim 40, wherein said at least one additional bitstream represents a dimension of said video image sequence.
- 44. (Previously Presented) The method of claim 33 wherein said base bitstream represents a first video image sequence having minimal quality.

→ PTO

09/707,044

45. (Previously Presented) The method of claim 44 wherein said at least one additional bitstream, when combined with said base bitstream, represents a second video image sequence having a quality that is higher than said base bitstream.